KANSAS MEDICAL JOURNAL.

VOL. IX. TOPEKA, KANSAS, SATURDAY, NOVEMBER 6, 1897. No. 45.

ORIGINAL ARTICLES.

Nephrolithiasis.

BY R. E. MCVEY, M.D., TOPEKA, KAS.

Read at the November meeting of the Topeka Academy of Medicine and Surgery.

Your Secretary invited me to present something to the Society this evening, and having had some experience with nephrolithiasis, I thought I would treat of the subject in a general way. Nephrolithiasis may be divided into three forms. First, that of fine crystals found in the pelvis of the kidney; second, that of small calculi which are found in the tubules and calices; and third, the large fixed concretions imbedded in the parenchyma of the kidney. Nephrolithiasis is observed at all ages, and even during intra-uterine life. It is most common before the age of fifteen and after that of fifty.

The youthful patients usually belong to the poorer classes; the older to the richer. It is more prevalent in some countries than in others, the difference being due apparently to climatic and dietary conditions. It is often inherited, and, in its uric acid form, closely associated with a gouty diathesis. All the forms have the same constitutional conditions—an over-acid urine. In the first form referred to, the urine is rather scant and high-colored, and the alkaline tide which should normally appear two or three hours after meals is absent; and the urine, left to stand, will show a blue line at the edge, and deposits dark reddish crystals of uric acid on the sides and bottom of the vase. The microscope may reveal also crystals of the oxalate of lime. This is the most frequent form observed in nephrolithiasis. The uric acid diathesis, after being once formed, is transmitted to the children. Hence, when we find gravel in the kidney of a child, it is of the uric acid formation, while in the adult, the formation is most frequently the oxalate of lime. When we find the phosphatic deposits in the kidney, the patients most always suffer from mental strain, and phosphates in the urine. But this condition is rarely found.

If the calculi are small they may be quite numerous. If we do not have the fine crystals or sand referred to, there is ordinarily but one stone in the kidney, or one concretion. A very fine crystal within the tubules may increase in size by continuous precipitation upon it of the urinary salts, until it causes pressure and irritating changes in the structure of the kidney. The concretions formed in this way are frequently of considerable size. The smaller ones are likely to escape through the ureter, being washed out from the kidney by the flow of urine. If the concretion is of considerable size, the shape of the kidney—that is, that portion of the kidney where it is lodged—will correspond to the shape of the calculus. If the calculus is imbedded in one of the tubes or calices, the tube will be dilated and its walls thinned. It will be accompanied by irritation, though this irritation may not be manifested to the consciousness of the patient.

The irritation in the kidney may result in congestion and inflammation. The inflammation may remain below the grade of separation for many years. In place of the thinning of the walls of the tubules, there may be thickening changes in its epithelium, and a notable increase in the amount of connective tissue in the parenchyma. Or, again, we may have granular and fatty degeneration of the epithelium, and its disappearance in many places; and the flattening

and obliteration of the tubules and their occasional distension by their retention of urine. The ultimate result of this destruction of the granular tissue may be an atrophy of the kidney, or a thinning and hardening of the cortex. Again, the organ may be notably increased in size by dilation of the pelvis; stretching of the cortex, under pressure of retained urine within the pelvis, or by the calculus that blocks the ureter.

Etiology.—The cause of the formation of gravel in the kidney, in the great majority of cases, is a general one. In only a small number of cases is the cause a local one. The local cause is the existence of catarrhal or ulcerative conditions of the mucosa of the pelvis and its prolongations, the products of which, combining with some of the constituents of the urine, provoke the precipitation of the urinary salts. In respect to uric acid deposits it is known to coincide with the diathetic condition, and the diatetic and hygienic peculiarities which have causative relations to an excess of uric acid in the urine, and to this excess crystallization within the urinary reservoir and passages is probably due.

In like manner crystallization of oxalate of lime is thought to follow an excess of that constituent in the urine and, like uric acid, is thought to be an irregular accompaniment of normal metabolism. It is well known that oxaluria is not dependent upon the ingestion of food containing large amounts of oxalates, but that it habitually coincides with a nervous and depressed condition in nervous and overfed individuals.

The presence in the liquid of some solid body, no matter how small, such as a clot of blood, a shred of mucus or fibrine, or a very small fragment of tissue, may provoke the precipitation of either of the urinary salts referred to. Kidney gravel is found much more frequently in men than in women. The symptoms of the passage of the gravel from the kidney is a dull, aching pain, deeply situated in the small of the back and flank of the side affected, radiating along the ureter and into the testicle. The pain is increased by exertion or local pressure, and may coincide with any grade of gravel, from that of fine sand and fine crystals to large calculi.

The pain may persist after the gravel has been passed, and may even take the form of a sciatica or a sharp, burning pain in the thigh, calf of the leg, or foot. The subsequent pain is attributed to the irritation in the kidney which remains after the discharge of the foreign element.

Where there is a large stone in the kidney the structure may make futile attempts at its removal, the body being too large to pass out. This condition will be intermittent as long as the stone remains there. Again, fine crystals and urates may be washed out of the kidney with some pain, but they more frequently pass without pain, and sometimes without the patient's knowledge. Nausea and vomiting often accompany the paroxysms, and are probably a result of the pain. Frequency and urgency of micturition is a consequence of renal irritation. This symptom is often referred to the bladder, the physician overlooking the renal cause unless he keeps the possibility in mind.

The kidney stone retained within the kidney may remain there for years without giving rise to any symptoms to arouse the patient's attention.

Pain, occasionally, over the regions of the kidneys, and especially if it be accompanied by pain or distress in the testicle and over-acidity of the urine, should be suspected, and the patient's mode of life and diet should be guarded. There must be little self-indulgence. All stimulants should be prohibited, but beer is especially bad. With proper precautions, one with this trouble may enjoy many years of useful and active life.

To give the subject a larger view than usual, lumbago, sciatica and fatigue asthenopia may be included as properly belonging to the uric acid diatheses. It is not my purpose, however, to work out all the details of this matter to-night.

High-colored urine that deposits many acid crystals on standing or becomes very turbid on cooling, unilateral pain and urgency, and frequency of micturition clearly indicate irritation in the kidney. Renal

colic seldom offers any difficulty, for proper attention to the symptoms will ordinarily distinguish them at once from hepatic and uterine colic.

In the early stage of the disease, that of over-acid urine, more or less pain in the dorsal region of the side affected requires a moderate regulation of life and diet, and occasional use of alkalis. The patient must be abstemious in regard both to the quantity and quality of his food, must refrain absolutely from the use of malt liquors, cut down upon sugar, drink water freely, exercise regularly but not immoderately, and promote the action of the skin by baths followed by free friction. The patient should live upon milk, eggs, beef, mutton, chicken, fish, rice, potatoes, bread, butter, and similar foods. Coffee is not objectionable, and tea may be used if taken while fresh and hot.

Within the last two or three weeks I have had several patients who have the first form referred to—that of fine sand or crystals which are deposited upon the sides and bottom of the vessel when cooling. One of these patients has had this peculiar deposit for many years. The patient has never been violently sick, but is never perfectly well. But, recently, he was seized with lumbar pain, extending to the flank and testicle. The pains were so excruciating that I was compelled to use ¼-grain of morphia hypodermatically. The pain seemed to be intermittent, recurring from one to three weeks. But there had been no discharge from the kidneys of anything but the fine crystals. Last Saturday the urine was still scant and high-colored, and deposited with crystals, but I am of the opinion that there is a larger concretion in the calices of the kidney, which is still retained, and the pain is the result of expulsive efforts at removal. I first gave him, after the hypodermic injection, 15 grains of citrate of potassium in 4 ounces of the syrup of citric acid and water, making 15 grains to each teaspoonful of the salt. While he does not have a return of the paroxysms of pain, I should not be surprised at any time to hear of their return. I am now giving him the salicylic compound of P. D. & Co., which contains salicylic acid, iodide of potassium, and gelsemium and cimicifuga. The salicylate dissolves the uric acid, the iodide eliminates it through the kidney, the gelsemium quiets the pain, and the cimicifuga increases muscular tone and expulsive efforts in the kidney. About two years ago, I was called to see a woman at 50, who had uric acid diathesis. She was suddenly seized with violent lumbar pain, which was so severe as to cause her to be writhing on the floor. And, upon putting in the morphia hypodermatically and the administration of salicylic acid compound, she discharged a large amount of uric acid crystals and was relieved. But this patient is more or less of an invalid, with a frequent recurrence of similar paroxysms.

And not unfrequently this hypodermic injection of morphia does not act so promptly. The stone may be passed in a few minutes, or may be several hours in its journey to the bladder. Then we are obliged to resort to the use of chloroform. Patients should be kept under the influence of chloroform and morphia—in a semi-conscious state—until the stone passes.

Not long ago I had a boy who was something under ten years of age, who suffered most excruciating pain for about forty-eight hours, when the stone was discharged. The hypodermic injections only seemed to give him partial relief, and it was necessary to give the chloroform. There was evidently but one stone in the kidney, and he has had no trouble since.

Last week a lady at about 50 came to my office, who had an eczematous eruption upon her legs, which had been persistent for a number of years. Upon questioning her with reference to the condition of her kidneys, I found that she had a scant and high-colored urine and deposits of the urates, which satisfied me that I had a case of gout, with deposits of urates upon the skin, which kept up the eczematous eruption. The prognosis in such cases depends upon regulation of the patient's diet and the improvement in oxidation and metabolism. There are very many such cases in the country, and if we were able to make a correct diagnosis, we should be able to treat them not only skilfully but render ourselves benefactors to this kind of invalidism.

Kansas Medical Journal.

PUBLISHED WEEKLY

BY THE UNION PUBLISHING COMPANY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE:

Per annum, in advance..... $1 00
Single copies..... 15 cents

Subscription may begin at any time. The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers by forwarding in Registered Letter. Address

UNION PUBLISHING CO.,
TOPEKA, KAS.

W. E. McVEY, B.S., M.D., EDITOR.

COLLABORATORS:

J. E. MINNEY, A.M., M.D., Topeka, Kas.
S. G. STEWART, M.D., Topeka, Kas.
J. C. McCLINTOCK, A.M., M.D., Topeka, Kas.
M. B. WARD, A.M., M.D., Topeka, Kas.
W. S. LINDSAY, M.D., Topeka, Kas.
JOS. B. CONNELL, B.S., LL.B., M.D., Kansas City, Mo.

Topeka, Kansas, Saturday, Nov. 6, 1897.

THE direct or local treatment of diseases of the respiratory tract is being proven by experience to be of inestimable value, and its administration attended with fewer difficulties than at first apprehended. The objective point in all of the most successful plans of treatment has been to bring our therapeutic agents as nearly as possible in contact with the diseased tissue. We depend upon the fact that certain volatile drugs are eliminated through the lungs in administering treatment by the stomach. In this way at least some element of the drug is brought into contact with the pulmonary tissue. In the use of inhalations we anticipate accomplishing the same end by a more direct method. Just how fully we succeed in either case depends upon the nature of the drugs used and the condition of the tissues through which absorption must take place. If there is not too much change in the mucous membrane of the bronchi we can reasonably expect that substances introduced into this part of the respiratory tract will be at least partially absorbed and the advantage gained over those drugs, which having been given by the stomach, are eliminated by the lungs, is in the nature of a more continuous contact. In direct medication the mucous membrane first receives the influence of the drugs which is absorbed by the lymphatics, passes into the venous circulation, and through the right side of the heart into the pulmonary circulation. It is probable that most of the volatile elements will escape into the air cells and thus saturate the residual air. Some of the substances may be carried further by the circulation again reaching the lung tissues through the bronchial arteries. By repeated applications the lung tissues may thus be kept constantly coated with the medicament. For the successful results of this treatment it is essential that some substance not readily evaporated should be used as a menstruum: for this reason oil is better than water or alcohol. For inhalations creosote, iodine, eucalyptus, menthol, wintergreen, and many other remedies may be incorporated with almond oil or albolene and introduced by means of a nebulizer, or by the plan which is rapidly coming into favor—the intertracheal injections. This plan is especially beneficial where there is a great deal of cough and expectoration. Intertracheal injections of menthol in almond oil often give great relief where there is much cough, and especially where there is pain. The intertracheal injection has the advantage of the inhalation method in that more of the oil can be introduced. The benefit from repeated applications of a beneficial bland oil to the inflamed mucous membrane is very readily felt and appreciated by the patient. By aiding expectoration, and by the antiseptic effect of the drugs used, considerable benefit may be expected in phthisical cases even after large cavities in the lungs are present. The intra-pulmonary injections, through the chest wall, in these cases have not proven of greater advantage, and are certainly more dangerous and disagreeable

than the intertracheal injections. Further experiments along this line may lead us to a successful issue in the treatment of pulmonary phthisis.

IT is sometimes very difficult to make a diagnosis between tabes and pseudo tabes. Dana said: "When Dejerine described as locomotor-ataxia a case which now appears to have been one of alcoholic peripheral neurotabes, when Buzzard has diagnosticated as true spinal tabes a case of post-diphtheritic ataxia, when Seligmueller mistakes a case of wall-paper-poisoning for one of true spinal tabes, we may easily suppose that errors have been made by others."

A NEW local anesthetic which is especially adapted for use in eye surgery is known as "halocaine." It is claimed that it acts more rapidly than cocaine, anesthesia coming on in from fifteen seconds to one minute and lasting ten minutes. It does not dilate the pupil, does not affect accommodation, and does not increase intra-ocular pressure. It is in a 1 per cent. solution thoroughly bactericidal. It is very poisonous and cannot be used hypodermically or internally.

Influenza.

Medical Review of Reviews.

In the *Lancet* (London), Sept. 18, appears a paper upon this subject, by Geo. Gresswell, L. R. C. P., L. R. C. S., Edin., etc., in which he says:

One attack, so far from conferring immunity seems to render an individual more prone to subsequent infection, provided a short interval has elapsed. It has been held that the period of incubation varies from a few hours to even as long as three weeks. In all probability it is usually only a few hours, and seldom or never more than a day or two.

With regard to prognosis, very early or advanced age, or chronic pulmonary or cardiac disease, and especially, perhaps, nervous complications, render the disease grave. It is very questionable if it is scientific or even wise to make a classification of varieties; but, speaking quite generally, and from ordinary practical experience, we may mention four chief types: 1st, pulmonic; 2nd, abdominal; 3rd, neurotic; 4th, rheumatic. The only or chief merit of this classification is its usefulness. Often a case is met with which does not belong to any of these classes in particular, but presents symptoms of all four types. There is also a malignant form of influenza which may be called typhoid, and, indeed, it is sometimes very difficult indeed to distinguish it from true typhoid fever, especially if the latter begin, as it often does, with a pneumonia. Sometimes, in order to be on the safe side, it seems best to treat such doubtful cases as if they were really typhoid fever in regard to the wisdom of abstenation from solids. So puzzling in practice are some of the cases that the question may arise: Is it just possible that there may be some connection between typhoid fever and typhoid influenza, that the germs of the one disease may be a modified variety of the other? On the whole, it is perhaps wisest to recognize the diseases as distinct.

Perhaps the most characteristic feature of influenza is the intense nervous prostration, and feeling of utter helplessness and misery it causes. In most cases presenting any serious symptoms, it is quite unnecessary to tell the patients to go to bed, for frequently they cannot only not stand, but not even sit down with comfort. In some the prostration is excessive, as it was in a woman under my care who remained in bed for about ten days, with an average temperature of 102.5° F., scarcely able to take anything except effervescent or lemon drink and barley water, unable to sleep without the aid of sulphonal or bromides or other sedatives, vomiting and purging persistently whenever any food was taken, and constantly racked with headache and pains in the limbs.

In regard to the important matter of treatment, it may be said to be unwise to adhere to any fixed line. Some authorities condemn

the system of treating symptoms; but in reference to influenza special regard must be paid to them. It is above all things necessary to watch the case well, and alter the remedies used directly there is need for so doing. On constant watchfulness and care depends our hope of best success. The presence of uric acid in the system should be combated with alkalies. The bowels must be opened daily and diarrhea checked; vomiting also should be arrested. Where there are lung symptoms, poulticing the chest should be judiciously carried out, and where there is very much abdominal pain this is also a very useful measure. Hot flannels with turpentine or some special embrocation, or warm anodyne fomentation, may be substituted. The dieting and general hygienic management are of importance, and at first all solid food should be rigidly prohibited. Antifebrin, phenacetin, citrate of caffein, and gelsemium in small doses are invaluable, when properly used, to arrest the headache. Salicylates, coupled with salts of ammonium and bicarbonates of the alkalies, mingled when necessary with the best cough mixtures, in order to allay the soreness of the throat and the distressing cough, may be advised, with due regard to all circumstances of the particular case under consideration. Stimulants, such as brandy, whisky, port wine, etc., may be prescribed with care, especially to the old or feeble. Quinine cannot be recommended until the age of convalescence is reached. The air in the room should be kept pure, if necessary by opening the windows, taking care to avoid draughts. It is also well to have disinfectants about, and it may even be advisable to burn a little sulphur or disengage some sulphur dioxide by other means. The patient may inhale a little iodine from time to time or ammonia from a bottle containing either of these substances. Creosote or eucalyptus or carbolic steam may be preferred, or steam with ether, chloroform, or conium. The patient should keep to bed so long as there be any serious symptoms. With absolute rest in the recumbent posture, and fluid diet, recovery will be quicker. In adults a dose of calomel is often advisable.

The food at first should consist of beef-tea and milk with cold or iced or effervescent fluids. Soon the diet may be extended; should capillary bronchitis or symptoms of pneumonia appear, decotions of bark and chloric ether with camphor and ipecacuanha, and some of the usual syrups, as well as stimulants, may be useful. If the pains are severe in the limbs, a large dose of bicarbonate of potassium may be coupled with some opium, and also with iodide of potassium and salicylate of sodium, or a mixture of bromides may be serviceable. If the temperature be high, sponging with cold or tepid water is very valuable, or with a solution of permanganate of potassium. If the headache be severe, cold applications of vinegar cloths may be placed on the painful part, and in some cases two or three leeches are very effectual; indeed, sometimes even one leech acts like a magic charm. During convalescence tonics—*e.g.*, gentian, iron or quinine, or syrup of the hypo-phosphites with good food and wine, are advisable. Should there be much debility left after recovery, it is wise to order a complete change, if it be possible.

Most patients, however, make a very good recovery, and it is generally only those who have not been properly attended to, taking perhaps no medicine at all, or only such household remedies as are in general use, or perhaps other equally inefficacious nostrums, who are troubled with those interminable complaints which are often traced to the time "when I had the influenza."

Nervous and Mental Diseases.

New York Medical Journal.

The Treatment of Cerebral Hemorrhage.—In *Treatment*, for July 8, Dr. Byrom Bramwell has an article on this subject, of which the following is the substance:

"At the beginning of an attack of cerebral hemorrhage, says the author, the first indication for treatment is to try to arrest the bleeding and limit the extravasation, and this is done by lessening the activity of the cerebral circulation. The head and shoul-

ders should be raised rather than lowered. An ice-bag should be applied to the head and warmth to the feet. Leeches may be applied behind the ear, and a drop or two of croton oil administered. Venesection, bleeding from the temporal artery, compression of the common carotid artery, and ligaturing the carotid artery on the side of the hemorrhage are, he says, other methods which have been recommended.

"Bleeding, Dr. Bramwell believes, is useful, and especially indicated in those cases in which the face, head and neck are turgid, the pulse is hard, full and slow, and the left ventricle is hypertrophied. It is contra-indicated, however, in cases in which the pulse is feeble, rapid or irregular, the heart dilated or weak, and the patient very old or debilitated.

"A brisk, watery purge acts, he says, in very much the same way as a moderate bleeding, but for the production of such a purge time is required; consequently, in many cases, venesection is preferable. In cases in which the advisability of bleeding is doubtful, a drop or two of croton oil and an enema may be administered. The practice of applying a blister to the nape of the neck is, Dr. Bramwell thinks, of doubtful advantage. In several cases, he says, it is useless, and in slight cases in which coma is speedily recovered from it is unnecessary. If a blister is to be applied at all, it is probably best applied to the shaved scalp between the ears over the top of the head. The ice-bag may be applied over the top of the blister.

"Internal remedies Dr. Bramwell considers doubtful, as they have not much influence in arresting the bleeding, although nitrate of amyl, or nitrate of sodium, is perhaps useful in some cases in which the pulse is hard and tense; venesection, however, he considers a better remedy.

"If coma becomes deeper and deeper, the pulse slower and slower, and the respiration more and more affected, and intracranial pressure is evidently steadily increasing as the result of a gradually increasing hemorrhage, the advisability of trephining and tapping the hemorrhagic cavity, and so preventing rupture into the lateral ventricles—an event which is certainly and rapidly fatal—should be considered. Such cases are comparatively rarely met with.

"The second indication, continues the author, is to attend to the condition of the bladder, and to take means to prevent, if possible, the formation of a bedsore. The patient should be placed at once, or as soon as he can be moved without risk, upon a water bed. Care must be taken, too, that the hot bottles which are applied to the feet are not too hot. Owing to the comatose, or semi-comatose condition, the patient will not, of course, make any complaint (the nurse has, under such circumstances, to feel for him), and, owing to the diminished trophic resistance of the skin, a degree of heat which would not be prejudicial to a healthy person may easily blister and burn the skin of a patient suffering from cerebral hemorrhage. If there is retention of urine, the bladder should be emptied by the catheter at regular intervals; if there is incontinence, the patient should be kept dry and clean. This is a most important point, says Dr. Bramwell, for the development of a bedsore is one of the chief dangers in cases which do not immediately prove fatal.

"The third indication is to sustain the vital powers by appropriate feeding, and, if necessary, by the administration of cardiac tonics and stimulants. It is important to avoid giving anything which is likely to produce vomiting, for the straining which attends the act of vomiting may reopen the ruptured vessel, or, if the bleeding is still going on, increase it. For the same reason, stimulants should be withheld, unless they are absolutely required. If the heart is failing, and the pulse rapidly running down, stimulants must, of course, be administered, even at the risk of increasing or re-exciting the hemorrhage.

"During the comatose state, Dr. Bramwell continues, the administration of food and liquids by the mouth requires to be conducted with great care and caution.

"A nutrient enema may be given every four hours, and, if necessary, it may be supplemented every now and again by a nutri-

ent suppository. During the stage of coma, mucus, saliva, etc., are apt to accumulate in the mouth and pharynx, and add to the difficulty of the respiration and the tendency to death from asphyxia; for it must be remembered that in some cases the patient dies during the stage of coma from failure of the heart's action, in others from asphyxia and failure of the respiration, in others from the two conditions combined. In others again, death is preceded or attended by hyperpyrexia.

"By attention to posture (turning the patient on his side, turning the head to one side, etc.), it is in many cases possible to avoid the accumulation of mucus, etc., at the back of the throat, and so to diminish the risk of asphyxia. The relief is, however, in most cases merely temporary. In cases of cerebral hemorrhage in which these conditions are developed, the result is almost always fatal. It is very different when we are dealing with the status epilepticus. In that condition, Dr. Bramwell says, he has undoubtedly, in more than one case, by preventing the accumulation of mucus, saliva, etc., in the back of the throat, and so preventing asphyxia, saved the life of the patient.

"Provided the patient can swallow, a teaspoonful or two of milk may from time to time be given by the mouth, but once the bowels have been thoroughly well opened, it is better to feed the patient by the rectum. If there is difficulty in swallowing, if the administration of liquids by the mouth produces coughing or choking, the feeding should be entirely rectal. Alcoholic stimulants, digitalis, etc., may be given by the same channel, or strychnine (a drop or two of the liquor every two hours) may be administered hypodermically, the effect being, of course, carefully watched.

"Possibly in some cases in which the respiration is much embarrassed and death from asphyxia seems imminent, oxygen inhalations might be beneficial.

"The main objects of treatment during the first stage of cerebral hemorrhage are to arrest the bleeding and to tide the patient through the stage of coma.

"The fourth indication, continues the author, is to prevent and allay the secondary cerebral inflammation.

"When symptoms indicative of this (a rise in temperature, headache, muscular twitchings, rambling, a return of the coma, etc.) develop, a brisk purge may be again administered, cold (an ice-bag) reapplied to the head, and bromide of potassium or a combination of bromide of potassium and chloral hydrate given in addition to the iodide.

"If, during the stage of secondary cerebral inflammation, the pulse becomes very quick, feeble, or intermittent, cardiac stimulants—digitalis, strophanthus, strychnine, etc.—must be given; alcohol is probably better avoided. If the pulse tension is high, the administration of remedies which depress the force and violence of the heart's action, such as aconite or nitrate of sodium, may perhaps be employed with advantage in some cases in addition to purgation.

"As the symptoms of this secondary inflammation subside, the use of bromide of potassium and chloral hydrate should be discontinued.

"After the symptoms indicative of this secondary inflammation pass off, complete rest must still be enjoined until the acute changes round the clot have subsided. The use of iodide of potassium, with perhaps a small dose of carbonate of ammonium or tincture of nux vomica, should be continued. During this, the early stage of convalescence, the patient must be carefully fed, the condition of the bladder and rectum attended to, and any cystitis or bedsores which may have developed treated. At this stage of the case gentle massage is useful. Faradaism of the paralyzed muscles, strychnine, and too active attempts at voluntary movement of the paralyzed parts, all of which may be most useful a little later, should be avoided, or, if employed, administered with great caution.

"Some authorities, Dr. Bramwell continues, recommend the application of the constant electric current to the head—one pole being placed just above either mastoid process. The constant current, by its atalytic action, is supposed to aid the absorption of

inflammatory products and to promote the nutrition and restoration of the damaged nerve elements. It is very doubtful, he thinks, if electricity applied in this way is of any real use. If it is employed the greatest care should be taken to use a weak current, and the effect which the current produces on the patient should be carefully watched.

"In severe cases of hemiplegia the tendency to the development of contractures should be remembered, and passive movements (more especially of the fingers, wrist, and elbows, for it is at these parts that the contractures are most apt to be developed) carefully and diligently practiced.

"When there is reason to suppose that the acute changes have subsided—*i. e.*, at the end of six weeks or two months—the treatment appropriate for an ordinary case of chronic hemiplegia may be employed. A more liberal dietary may be allowed; the patient should be encouraged to practice systematic voluntary movements, general tonics, such as quinine and small doses of strychnine, may be given internally, and massage and electricity judiciously and cautiously applied to the paralyzed muscles.

"The treatment (amount of exercise, etc.) must, of course, Dr. Bramwell adds, be carefully and judiciously regulated in accordance with the conditions which are present in each individual patient (the severity of the paralysis, etc.), the state of his heart, arteries, kidneys, etc., being taken into account.

"Concerning the prevention of subsequent attacks, Dr. Bramwell thinks that much can be done to prevent and defer a second rupture. All exciting causes should be avoided; it is especially necessary to reduce the blood pressure when the pulse tension is excessive, such as sudden efforts, mental excitement, sudden exposure to cold, straining at stool, etc. A patient who has had an attack of cerebral hemorrhage, however slight, should lead a quiet, routine life, and if his business entails much bodily exertion, mental strain, or excitement, he should be advised to give it up. In some cases, however, it is usually preferable to allow the patient to continue his work in a modified way rather than to worry in his idleness. The risks entailed by the work and the risks entailed by the idleness and the want of occupation have to be weighed one against the other.

"The diet should be light and nutritious; if the patient is gouty, if his kidneys are cirrhotic, if his blood pressure is high, a non-nitrogenous diet is best. In these cases, says Dr. Bramwell, alcohol should be prohibited; a certain amount of tobacco, however, may be allowed. A certain amount of gentle exercise is beneficial, but sudden exertions, running for trains, etc., should be rigidly avoided."

Myocarditis Following Typhoid Fever.

La Tribune Medicale.

From the *Medical Clinic* of Turin, directed by Professor Bozzolo, is reported the case of a young girl, aged 13 years, who was under treatment in December and January for typhoid fever. During convalescence some swelling of the neck, a slight cough, and some dyspepsia were noticed. Everything had disappeared before the 10th of March, when the patient was brought back afflicted with œdema of the lower limbs and cyanosis. The veins of the neck pulsated strongly, the apex-beat was in the fifth intercostal space, a centimetre (a little more than ⅓ inch) to the outer side of the sternum. Its pulsations were confused, but no tremor was perceived upon palpation. The second sound was accentuated. The lung was absolutely healthy. The other organs normal. There was a trace of albumin in the urine. There was no fever. The pulse was feeble and frequent.

On March 29th an alteration of the cardiac rhythm was observed. The pulsations were double those perceived in the radial artery. The first sound was accompanied by a soft murmur. The pulse was thready.

Upon the next day there was severe pain in the left hypochondrium, albuminuria had increased, and granular casts and renal cells were present in the sediment. The temperature was 38.5° C. (101.3° F.).

There was also cyanosis.

On April 1st the patient was attacked by coma and right-sided hemiplegia. The albumin and fever had vanished. Death occurred on April 9th.

At the post-mortem examination there was found in the middle cerebral artery, an embolism with hæmorrhagic infiltration into the left corpus striatum. Both ventricles were dilated. In the left two thrombi were present. There were diffuse myocarditis and an infarct at the base of the right lung and in the kidneys.

Professor Bozzolo made a diagnosis of infectious myocarditis of typhoid origin. The lesions of the kidneys and lower limb he regarded as the result of emboli dependent upon the disease of the heart. The cardiac thrombi might have been produced either by an adhesive pericarditis or by a severe myocarditis. The typhoid infection, though mild in this case, may be considered as the cause of this very rare sequela.

Treatment of Hydrocele by Free Washing With Carbolic Lotion.

Medical Review of Reviews.

The Medical Week, August, 1897, in the report of the Academy of Medicine, of Belgium, says:

Many surgeons have already employed carbolic acid as a modifying agent for the tunica vaginalis in the treatment of hydrocele. It was either introduced into the cystic cavity in the form of pure liquid carbolic acid (Weir and Abbe), or 15 grammes of a 3 to 8 per cent. solution of carbolic acid were left in the sac (Schotzke), or again the tunica vaginalis was simply brushed, after incision, with tampons soaked in a 3 per cent. solution (Bompiani).

Besides these older methods of treatment of hydrocle by carbolic acid, another has been successfully applied for the last two years by Drs. Pilate, chief surgeon, and Vissemans, assitant surgeon, to the military wards in the Hotel-Dieu at Orleans. This method, a description of which is given by Dr. L. Audouin in his thesis for graduation, consists in washing out the vaginal cavity with large quantities of a 3 per cent. aqueous solution of carbolic acid after simple puncture of the hydrocele. It presents the advantage of being very easily performed, and of giving rise to only very moderate reaction on the part of the tunica vaginalis.

The following is the procedure recommended by the authors:

The instruments employed consists of an ordinary irrigation pitcher and a trocar of medium size, adapted to the India-rubber tubing. The instruments are carefully disinfected by boiling, and the scrotum first brushed with soap and water, then washed with a 1-2000 solution of corrosive sublimate; the trocar is then pushed into the cyst in such a manner as not to touch the testicle. When the hydrocele fluid has been entirely removed, a certain quantity of a 3 per cent. tepid carbolic acid solution, previously boiled, is injected so as to bulge out the pouch to a moderate extent; the liquid is then let out, and is found to be turbid and full of fine fibrinous clots. This washing is repeated until the carbolic solution comes out perfectly clear, four or five injections, and from one to four litres of liquid being usually required, according to the size of the hydrocele. During the operation, an assistant supports the scrotum with one hand, whilst holding the cannula in a slight fold of the skin between the thumb and index finger of the other hand, so as to prevent the instrument from passing out of the vaginal cavity and the liquid from penetrating between the scrotal enveolpes.

When the operation is ended, the cannula is withdrawn, the hole covered with a small pellet of sterilized cotton-wool and collodion, and the patient ordered to wear a suspensory bandage or a pair of bathing drawers, well lined with wadding.

The patient feels no pain, owing to the local anæsthetic action of the carbolic acid. Two days later, the effusion of liquid is found to have re-formed, but it is not so copious as the first, and passes away by itself within four or five days. The patient may then be considered as cured, and may be allowed to resume his ordinary occupations, sim

wearing a suspensory bandage for some time.

Such is the procedure in cases of hydrocele of large size, in which the transparency of the liquid permits of determining the exact situation of the testicle.

When the hydrocele is small, non-transparent, and the diagnosis possibly difficult, it is well to begin with an exploratory puncture with Roux's syringe; if this exploration confirms the existence of an effusion, one may at once proceed with the washing through the same syringe, left in place.

In such cases, the needle is thrust in perpendicularly to the surface for a few millimetres in a spot where the chances of striking the testicle are small, *i.e.*, in the lower and anterior part of the tumor. It is then inclined until it becomes almost parallel with the anterior wall of the cyst, point upwards, and pushed in slowly with a slight rotatory movement. If it strikes the testicle, the hand feels an abnormal resistance, and the patient at once complains of being hurt. The instrument is then withdrawn slightly and pushed in another direction. The cavity thereupon is emptied by aspiration, the syringe is detached from the needle, the latter is left in place, and through it the 3 per cent. solution is poured in, and the pouch washed out as above.

The cure of hydrocele obtained by means of these carbolized lotions appears to be definitive, so far at least as may be judged from an experience of two years. In none of the cases operated on at the Orleans Hospital during this time has the effusion as yet reformed.

The method, on the other hand, presents but one drawback, of slight importance on the whole, consisting in the occasional development, towards the second day after the operation, of a superficial carbolic acid erythema around the point of puncture. This erythema, which is never larger than a crown-piece rapidly takes on a darker color, and forms a small, very superficial crust which exfoliates and drops off within two or three days, leaving no trace.

Lastly, it may be added that this method of treatment is only suitable for cases of hydrocele in young people.

Ulcerative Endocarditis of the Valves of the Pulmonary Artery.

La Tribune Medicale.

Dr. Keller records the case of a man, 25 years of age, who came into the hospital with severe pain in the breast and intense dyspnœa. Two months before admittance he had suffered from articular rheumatism in both knees, and this arthritis followed an attack of gonorrhœa. At the time of his entrance the following manifestations were observed: There was generalized and very pronounced cyanosis; the dimensions of the heart were increased, especially upon the right side; there was a double murmur in the left intercostal space near to the sternum; the spleen was considerably enlarged. The urine at first presented nothing abnormal, but at the end of ten days it was found to contain albumin, the quantity of which progressively augmented. Hyaline and epithelial casts, red and white blood-corpuscles, and renal epithelium were also present. The temperature rose daily and the elevation was preceded by a more or less severe chill. An examination of the blood for plasmodia gave no decided result, and treatment by means of quinine showed that there was probably no malarial element in the case. Upon the following days there were discovered, in addition to the pulmonary complications which have been mentioned, symptoms of right-sided pleurisy, followed by those of pericarditis. The patient succumbed to these complications three months after his entrance to the hospital.

In view of the cardiac manifestations, hypertrophy of the spleen, fever of intermittent type with chills, together with the involvement of the kidney, pleura, and pericardium, the diagnosis of ulcerative endocarditis limited to the pulmonary valves was made during life. Furthermore, as the patient had suffered from gonorrhœa the inflammation was considered as due to that infection.

At the autopsy excrescences the size of a cherry were found upon the valves of the pulmonary artery, while the remaining

valves were absolutely intact. There was no communication between the ventricles. In the lungs emboli existed in some branches of the pulmonary artery. The kidneys were the subject of acute parenchymatous nephritis. Bacteriological examination revealed the presence of numerous streptococci. The same organism was detected in colored sections of the valvular vegetations. The streptococci may have penetrated gonorrhœal ulcerations of the urethral mucous membrane, the gonorrhœa thus being the indirect cause of the endocarditis.

Must Doctors Respond to Calls?

The Atkaloidal Clinic.

The refusal of a prominent Chicago physician to respond to a night call has attracted considerable attention from the secular press. We are glad of it. We hope it will continue untill the relations of the medical profession to the community are fully comprehended. When the people finally understand that the doctor educates himself, pays for the privilege of attending clinics at the public hospital, supports himself, and receives absolutely no privileges or emoluments of any kind from the public, except that of paying license fees and wearing a tin tag like any huckster, men may inquire why we are expected to owe any service to the public.

True, there is the moral obligation entailed by our education and the position we hold in the community. But the moral obligation concerns ourselves alone, and is not one on which the public can base any demand upon us. And the highest moral obligation upon me is to support myself and family. Consequently, my first duty is to secure adequate remuneration for my services from those who are able to pay for them.

Many views were expressed by different physicians on this question, and some require comment.

When a doctor attends everyone who calls on him, with the expectation of realizing some 60 per cent. of his fees, he must not call the other 40 per cent. charity. It is a matter of business. He collects it if he is able; and he cannot call charity his uncollectible accounts. If he knows he will not be able to collect a bill, and still gives his services to that party, it is really charity; but the doubtful cases must be classed as speculation.

Moreover, the man who says he answers every call, irrespective of pay, must not take credit to himself for his goodness. He is only able to do this because he has inherited or married money. If not, he defrauds his creditors. If so, he defrauds two other classes; his wealthy patients, whom he compels to pay for his attendance upon others; and his poorer professional brethren, whom he deprives of possible employment. Indiscriminate giving of medical services degrades the profession to the rank of an eleemosynary institution, and pauperizes the doctor and patient alike.

But it has one saving grace—it enables the patient to pay more money to quacks.

THE day of huge classes is drawing to a close. The medical profession will soon appreciate the fact that the best instruction is obtainable in the small colleges. This expression may appear heretical to those who were educated under the old lecture system; but to the man who has learned the value of personal instruction in the chemical laboratory or in the pathological room during his early study, and the benefit of immediate contact with the operator or demonstrator in his later work the statement will appeal with ever-increasing force. One can never learn the sound of a heart murmur, nor acquire the dexterity to make an intestinal anastomosis by sitting a hundred feet away from a "lecturer." He must come into actual contact with the patient, and learn the technic by personal experience under the tutelage of of a master hand and mind.—*American Journal of Surgery and Gynecology.*

YERBA santa is said to be almost a specific in acute laryngeal troubles.

Hydrozone for Disorders of the Genito-Urinary Tract.

Medical Times and Register.

Dr. John Aulde, of Philadelphia, states that about eight years ago he was forcibly impressed with the value of Peroxide of Hydrogen in a protracted case of gonorrhœa. The disease had persisted for three months despite the treatment of several attendants, there being a constant discharge, and in addition, there was an orchitis present, the left testicle being about as large as a baseball.

Treatment consisted of the local use of injections of equal parts of Peroxide of Hydrogen and moderately warm water, used at intervals of four hours, these injections being followed by a solution of arsenite of copper containing one milligram (one 65th grain) to the drachm, diluted with an equal quantity of hot water.

In a week the patient was able to return to his home in a distant State, the discharge from the urethra having entirely ceased, and pain and chordee having disappeared.

The author advised the same treatment for non-specific urethritis and gleet, but as Hydrozone is much stronger (two times) than the Peroxide, and perfectly harmless, he gives it the preference.

In vaginitis and vaginismus this treatment is of especial value. The treatment heretofore recommended by physicians, consisting of hot vaginal douches, either with or without some alkali, as sodium bicarbonate, followed by the injection of a small quantity of Peroxide of Hydrogen (medicinal) in warm or cold water is superseded by the single application of a hot solution of Hydrozone, one part in eight; the patient should use a fountain syringe which should be hung upon the wall about six feet from the floor; the patient sits upon a suitable vessel, and introduces the rubber tip of the hose well back into the vagina, while the labia are compressed by the disengaged hand; this allows the solution to so distend the vagina as to bring it in contact with all the diseased tissue. The injection should be repeated twice in twenty-four hours.

In uterine diseases, where the solution must be brought into contact with the endometrium, the following treatment is pursued:

The patient is placed in the dorsal position, with the hips well elevated; an ordinary dilator is employed to distend the cervix, so as to admit the nozzle of the syringe and permit the free egress of the injected fluid; (a suitable return flow tube can be used to better advantage, the Fritsche's douche is the best that can be used). The injection is then made, a liberal amount of the hot medicated solution being used.

There is no need of caution in chronic cases, that the effervescence which attends the destruction of the unhealthy tissue does not force some of the debris into the Fallopian tubes. This is best avoided by using a large quantity of the solution, and afterwards directing the patient to assume the upright position. The pressure thus brought to bear upon the uterus will cause the complete discharge of all debris.

A preliminary vaginal douche should always be taken, using the medicated solution, as otherwise, harm might ensue by the entrance into the uterus of the vaginal secretions. The author warns against the use of the vaginal douche if the cervix be patulous, as there is an almost certain danger of the infected vaginal debris being forced into the uterine cavity. To avoid this the vagina should be cleansed by the local use of the medicated solution through the speculum.

The author believes Hydrozone to be the best remedy for cystitis occurring either in the male or female. The bladder should be washed out with the solution (one to eight), a small quantity being used at first in chronic cases, owing to the painful muscular contractions following the withdrawal of the solution. The amount can be gradually increased. (A double current hard rubber catheter should always be used for that purpose). In gonorrhea, gleet and cystitis, the local treatment is oftentimes aided by the internal administration of hourly doses of calcium sulphide one-tenth of a grain.

Bona Fide Testimonials.

The Medical Fortnightly, Oct. 15.

That the commendation of a strong man carries with it great weight is a fact appreciated by all manufacturers, and whatever be their advertising policy, testimonials are sure to be a feature. But "strong men" are not anxious to have their names too often in print, though they do appreciate the excellence of a product, and wish to encourage the manufacturer. This has led our leading manufacturers, and prominent in this class the Imperial Granum Co., to withold physicians' names when publishing testimonials. Published testimonials from this house are never signed, but the company guarantees that they are from men of repute, and stands ready to verify the claim should it be questioned.

"Grip."

C. A. Bryce, A. M., M. D., Richmond, Va., editor of *The Southern Clinic*, in writing upon the above subject, during an epidemic of la grippe, said:

"For the past four weeks or more, we have met with five times as much grip as anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved have been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism, hepatitis and gastric congestions have been of far greater frequency, while in all the nervous system has been seriously depressed.

"The fatalities from pneumonia, meningitis and other complications have been fewer, showing plainly that we are gradually gaining an immunity from this zymotic invader. With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nervous sedatives, anodynes and heart sustainers rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encourage action of skin and kidneys, with possibly minute doses of blue pill and quinine, or calomel and salol. We have found much benefit from the use of antikamnia and salol in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from antikamnia and codeine. Throughout the attack, and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time."

In Children's Practice.

Dr. Goliner, of Erfurt, has recommended Papain, B. & S., in *Der Kinder-Arzt*, as exceptionally valuable in infantile dyspepsia, and intestinal catarrh. He says: "I usually order 1½ grains Papain, B. & S., (for nursing infants), three times daily, with barley gruel and diluted milk fifteen minutes after each dose. After the third or fourth powder the infant's appetite increases, the spitting up or eructation ceases, ond the evacuations assume a normal yellow color—the previous fetid odor of the latter disappearing entirely, which is also proof of the antiseptic virtue of papain. For children over one year, I recommend a dosage of 3 to 4 grains Papain, B. & S. I have found it to be an excellent appetite-stimulating and digestion-promoting agent in children's practice."

DOCTOR:—Your library is not complete without the *Hypnotic Magazine*. Cost of this handsome monthly, including premium book on "Suggestive Therapeutics" is only one dollar ($1.00) a year. THE PSYCHIC PUBLISHING CO., 56 Fifth avenue, Chicago.

FOR inhalations of creosote, a combination with oil of eucalyptus in sweet almond oil makes a very pleasant mixture, with an odor quite different from ordinary creosote mixtures and not unpleasant.